We claim:

15

20

25

30

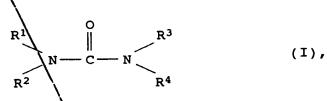
40

A process for the preparation of a polyisocyanate which contains one or more biuret groups by reacting

- an aliphatic or cycloaliphatic isocyanate containing two or more isocyanate groups (isocyanate a) with
- b) a tertiary alcohol or a mixture of water and a tertiary 10 alcohol (biuretizing agent b)

at from 100 to 250°C, which comprises carrying out the reaction in the presence

consisting essentially of of a stabilizer (c) which constitutes a catalytic amount of urea, ammonia, biuret, a urea derivative of the formula I



in which R^1 , R^2 , R^3 and R^4 are hydrogen, C_1 to C_{10} alkyl or \$5 to C10 arx1, or

a carboxamide of the formula II

$$\begin{array}{c|c}
O \\
\parallel \\
R^5 \longrightarrow C \longrightarrow N \longrightarrow \mathbb{R}^1
\end{array}$$
(II),

in which R^5 is C_1 to C_{12} alkyl which is unsubstituted or in which 1, 2 or 3 hydrogen atoms are replaced by a 35 radical

A process as claimed in claim 1, wherein the isocyanate (a) is a C_4 to C_{20}^{230} diisocyanate or triisocyanate. в 45

13

940640

· AD

B

10

A process as claimed in claim 1 or 2, wherein the isocyanate (a) is hexamethylene-1,6-diisocyanate.

-

. A process as claimed in any of claims 1 to 3, wherein the biuretizing agent (b) is a tertiary alcohol or a mixture of a tertiary alcohol and water including up to 80 mol% of water based on the sum of the components of the mixture.

1

5. A process as claimed in any of claims 1 to 4, wherein the tertiary alcohol is tert-butanol.

K

6. A process as claimed in any of claims 1 to 5, wherein from 0.5 to 20 mol 8 of biur tizing agent (b) are employed, based on the isocyanate groups in (a).

A process as claimed in any of claims 1 to 6, wherein from 0.01 to 2.0 mol of a stabilizer (c) are employed, based on the isocyanate groups in (a).

20 8. A process as claimed in any of claims 1 to 7, wherein the reaction is carried out at from 140 to 220°C.

H

9. A process as claimed in any of claims 1 to 7, wherein the polyisocyanate containing biuret groups is prepared and then unreacted isocyanate (a) is removed from it down to a content of less than 0.5% by weight, based on the polyisocyanate which contains biuret groups.

30

25

35

40